

6/30/03

Sheet 1 of 2

FORM PTO-1449  
(REV. 7-80)  
(Title Amended 3/83)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.

121278-1

SERIAL NO.

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT--

LIST OF ITEMS

(Use several sheets if necessary)

Applicant

Canan Uslu Hardwicke et al.

Filing Date

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## U.S. PATENT DOCUMENTS

| EXAMINER<br>INITIAL | DOCUMENT NUMBER  | DATE     | NAME              | CLASS | SUBCLASS | FILING DATE<br>IF APPROPRIATE |
|---------------------|------------------|----------|-------------------|-------|----------|-------------------------------|
| HEA                 | AA 6 3 8 3 6 0 2 | 05/07/02 | Fric et al.       |       |          |                               |
| HEA                 | AB 6 3 6 8 0 6 0 | 04/09/02 | Fehrenbach et al. |       |          |                               |
|                     | AC               |          |                   |       |          |                               |
|                     | AD               |          |                   |       |          |                               |
|                     | AE               |          |                   |       |          |                               |
|                     | AF               |          |                   |       |          |                               |
|                     | AG               |          |                   |       |          |                               |
|                     | AH               |          |                   |       |          |                               |
|                     | AI               |          |                   |       |          |                               |
|                     | AJ               |          |                   |       |          |                               |
|                     | AK               |          |                   |       |          |                               |

## FOREIGN PATENT DOCUMENTS

|  | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | TRANSLATION |    |
|--|-----------------|------|---------|-------|----------|-------------|----|
|  |                 |      |         |       |          | YES         | No |
|  | AL              |      |         |       |          |             |    |
|  | AM              |      |         |       |          |             |    |
|  | AN              |      |         |       |          |             |    |
|  | AO              |      |         |       |          |             |    |
|  | AP              |      |         |       |          |             |    |

## OTHER INFORMATION (Including Author, Title, Date, Pertinent pages. Etc.)

|     |    |  |
|-----|----|--|
| HEA | AR | Patent Application, Canan U. Hardwicke et al., Serial Number 10/065,816, filed November 22, 2002, Docket Number 120365-1.  |
| HEA | AS | Ronald S. Bunker, "Film Cooling Effectiveness due to Discrete Holes within a Transverse Surface Slot," IGTI Turbo Expo Int, Gas Turbine Conference and Exposition, June 3-6, 2002, Amsterdam, GT-2002-30178, pp. 1-10.         |
| HEA | AT | Masir Hasan et al., "Film Cooling from a Single row of Cylindrical Angled Holes with Triangular Tabs having different Orientations," ASME Turbo Expo 2001, June 4-7, 2001, New Orleans, Louisiana, USA, 2001-GT-0124, pp. 1-8. |

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Theresa A. Almy

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11/2/05

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|----------------------|-----------------|------|------|-------|----------|-------------------------------|
|                      | BA              |      |      |       |          |                               |
|                      | BB              |      |      |       |          |                               |
|                      | BC              |      |      |       |          |                               |
|                      | BD              |      |      |       |          |                               |
|                      | BE              |      |      |       |          |                               |
|                      | BF              |      |      |       |          |                               |
|                      | BG              |      |      |       |          |                               |
|                      | BH              |      |      |       |          |                               |
|                      | BI              |      |      |       |          |                               |
|                      | BJ              |      |      |       |          |                               |
|                      | BK              |      |      |       |          |                               |

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|  |                 |      |         |       |          | YES         | No |
|  | BL              |      |         |       |          |             |    |
|  | BM              |      |         |       |          |             |    |
|  | BN              |      |         |       |          |             |    |
|  | BO              |      |         |       |          |             |    |
|  | BP              |      |         |       |          |             |    |

## OTHER INFORMATION (Including Author, Title, Date, Pertinent pages. Etc.)

|     |    |  |
|-----|----|--|
| HEA | BR | D. G. Hyams et al., "A Detailed Analysis of Film Cooling Physics: Part III-Streamwise Injection with Shaped Holes," ASME, Volume 122, January 2000, pp. 122-132. |
|     | BS |  |
|     | BT |  |

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10/611 748

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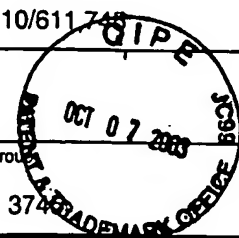
Canan Uslu Hardwicke et al.

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June 30, 2003

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## U.S. PATENT DOCUMENTS

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|                      | AA              |      |      |       |          |                               |
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|     |    |   |
|-----|----|---|
| HEA | AR | K. B. M. Q. Zaman, "Reduction of Jet Penetration in a Cross-flow by Using Tabs", Nasa Lewis Research Center, AIAA-98-3276, 34th AIAA/ASME/SAE/ASEE Joint Propulsion Conference & Exhibit, July 13-15, 1998, Cleveland, OH, pp. 1-8. ✓ |
| HEA | AS | L. J. S. Bradbury & A. H. Khadem, "The distortion of a jet by tabs", J. Fluid Mech. (1975), vol. 70, part 4, pp. 801-813, ✓   |
| HEA | AT | K. B. M. Q. Zaman & J. K. Foss, "The effect of vortex generators on a jet in a cross-flow", 1997 American Institute of Physics, Phys. Fluids 9 (1), January 1997, pp. 106-114. ✓  |

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